ABSTRACT:

The field of wireless sensor network (WSN) is an important and challenging research area today. Advancements in sensor networks enable a wide range of environmental monitoring applications. Multihop routing in WSN is affected by new nodes constantly entering/leaving. Moreover, secure routing is a difficult problem due to the resource limitations in WSN. Thus, biological inspired algorithms are reviewed and enhanced to tackle the problems. Ant routing and human security system have shown excellent performance. Certain parameters as energy level, velocity, packet reception, dropping, mismatch rates and packet sending power are considered while making decision. The decision will come up with the optimal route and also to take best action against security attacks. In this paper, the design and initial work of BIOlogical Inspired Secure Autonomous Routing Protocol (BIOSARP) is presented. The proposed bio-inspired mechanism will meet the enhanced WSN requirements, including better delivery ratio, less energy consumption and routing overhead.